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Department of Environmental Protection

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Massachusetts Electric Vehicle Incentive Program (MassEVIP): Workplace Charging Questions & Answers

What is MassEVIP?

The Massachusetts Electric Vehicle Incentive Program (MassEVIP): Workplace Charging is an open grant program administered by the Massachusetts Department of Environmental Protection (MassDEP) that provides incentives to employers for the acquisition of Level 1 and Level 2 electric vehicle charging stations that can charge EVs produced by multiple manufacturers.

Why does the Commonwealth need MassEVIP?

MassDEP launched MassEVIP on Earth Day 2013, to help meet the Commonwealth's aggressive climate and energy efficiency goals established by the Patrick Administration under the Global Warming Solutions Act (GWSA) and the Green Communities Act (GCA). MassEVIP helps the transition to a clean energy economy and reduces greenhouse gas (GHG) emissions from the transportation sector, one of the major sources of GHG emissions. The MassEVIP program helps achieve several of the Patrick Administration's policy goals, including:

- The Clean Energy and Climate Plan goals under the Global Warming Solutions Act - reducing GHG emissions by 25% below 1990 levels by 2020 and 80% by 2050;
- Efforts to make entities more fuel efficient; and
- Improving air quality by reducing smog forming and other emissions.

By launching MassEVIP, the Commonwealth demonstrates its commitment to increase the deployment of electric vehicles and electric vehicle infrastructure with the aim of increasing the visibility of advanced technology vehicles in communities across the Commonwealth.



What is Workplace Charging?

Workplace charging refers to the electric vehicle charging infrastructure, or electric vehicle supply equipment (EVSE), available for electric vehicles at or close to places of employment. Although EV owners principally charge at home, the availability of workplace charging allows EV owners to extend the mileage range of their vehicles, reduce their commuting costs, and reduce the emissions associated with their commutes.

Why should an employer have Workplace Charging?

- It allows access to EV charging for employees who do not have charging at home.
- It demonstrates the employer's leadership to employees, customers, and the surrounding community.
- It furthers the employer's goals to improve employee commuting practices and reduce greenhouse gases and other vehicle emissions.
- It enhances the employer's employee benefits package and helps the employer to recruit and retain employees.

What incentives are available to eligible applicants under MassEVIP: Workplace Charging?

Under MassEVIP: Workplace Charging Program, MassDEP will **provide 50%** of the funding up to \$25,000 for **hardware costs** to employers for the installation of Level 1 and Level 2 charging stations that can charge EVs produced by multiple manufacturers. If the employer has multiple sites across the Commonwealth, the employer is eligible to submit an application for each location. (Please submit a separate application for each location.)

Who is an eligible entity for MassEVIP: Workplace Charging Program?

An eligible entity under MassEVIP: Workplace Charging Program is an employer that employs 15 or more persons in a non-residential place of business in Massachusetts.

What is the application process?

The application process is quite simple. Interested employers need to complete the application form and submit it to MassDEP. This is an open solicitation and applications will be processed on a **FIRST COME FIRST SERVED** basis until all available funding is expended.

MassDEP will perform a review of an employer's application for completeness and eligibility. Upon a satisfactory review, MassDEP will issue a Grant Application Approval with an End-User Agreement that defines the terms and conditions of the grant to the



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awarded applicant within 30 days of receipt of the application. Upon receipt of the signed End-User Agreement by MassDEP, the approved employer will have up to 180 days to complete their charging station acquisition and installation.

Who can I contact for information on available EVSE?

Contact information and product listing for vendors on the state contract can be found on the program's webpage:

<http://www.mass.gov/eea/agencies/massdep/air/grants/workplace-charging.html>.

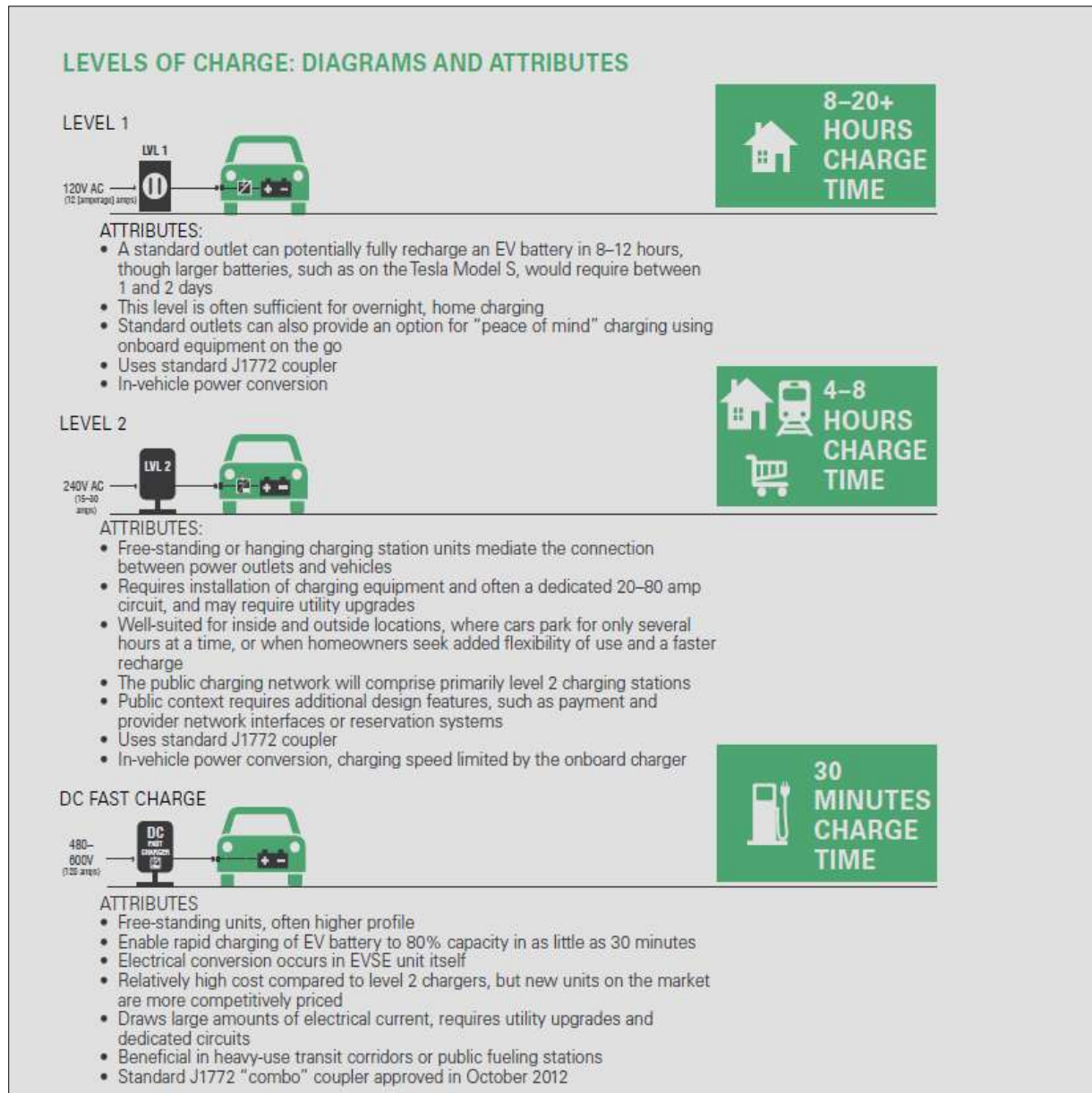
How can EV owners recharge their vehicles?

EV owners can plug into a standard wall outlet (120 volt also known as a Level 1) to recharge their vehicle. The Level 1 outlet is typically used for overnight charging. For a quicker recharge, EV owners can use a Level 2 charging station that delivers 240 volts of charging power, i.e., similar to an electric dryer outlet. While Direct Current (DC) Fast Charge is even faster, it is not supported by this MassEVIP: Workplace Charging Program; because of the higher cost of the DC Fast Charge equipment, it is a better value in a transit corridor where many cars can recharge over the course of a day. Massachusetts has more than 600 public charging points across the state at work sites, retail stores, and commuter parking garages. Figure 1 on the next page shows in detail the different levels of charging and their respective attributes.

What are the benefits of electricity as a power source for a car versus a car fueled by petroleum?

Although EVs are charged with electricity generated from fossil fuels, less GHGs are emitted than a conventional gasoline fueled vehicle. The Northeast power grid is more reliant on natural gas and renewable energy, so electricity generated in the Northeast is among the cleanest in the country. EVs not only decrease GHG emissions from the tailpipe but also significantly reduce tailpipe smog forming emissions. In addition, we can decrease our dependence on foreign oil imports.

FIGURE 1: LEVELS OF CHARGE: DIAGRAM AND ATTRIBUTES¹



¹ NYSERDA and Transportation and Climate Initiative (November, 2012). Siting and Design Guidelines for Electric Vehicle Supply Equipment.

<http://www.transportationandclimate.org/siting-and-design-guidelines-electric-vehicle-supply-equipment>



What are the cost savings from driving an EV?

Driving an EV costs much less per “gallon” than a conventional vehicle. The average cost of electricity in the Northeast is just over 15.5 cents per kWh which would translate to about \$1.53 per gallon equivalent compared to \$3.72 per gallon of gasoline.² As shown in Figure 2 below, electricity costs are lower than petroleum and have historically been less volatile, and EV owners can benefit from a less expensive source of energy to power their vehicles. Over the lifetime of an EV, an owner can save thousands of dollars in fuel cost.

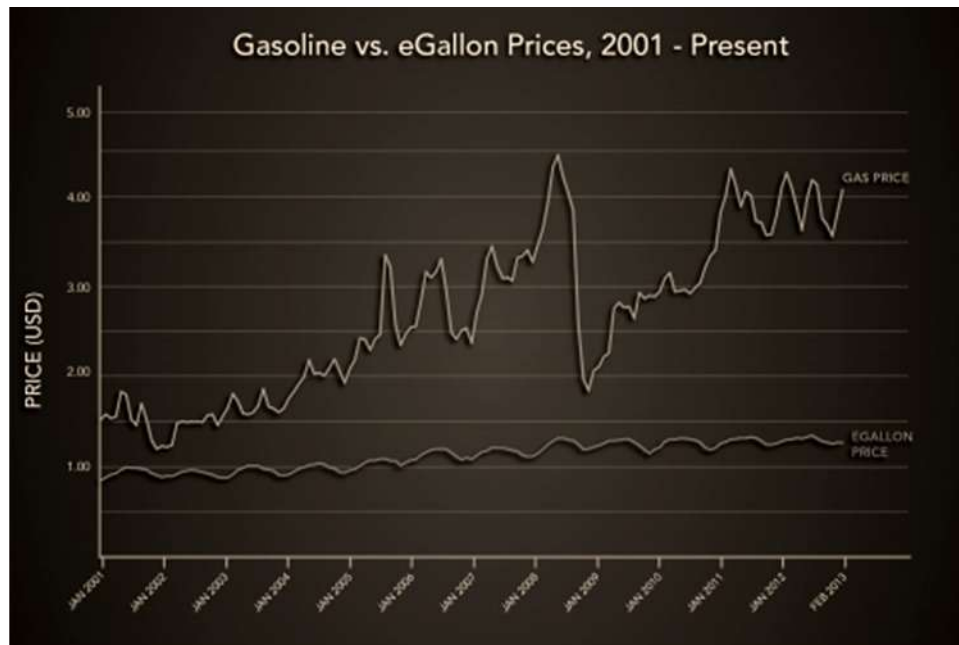


Figure 2: Gasoline v. eGallon Price³

Where can I get more information on how to apply for MassEVIP incentives?

You can get more information and download the application package (forms and instructions) at the MassEVIP webpage (<http://www.mass.gov/eea/agencies/massdep/air/grants/workplace-charging.html>). The webpage also contains up-to-date lists of eligible vehicles, incentives per vehicle, and all supporting documentation and forms.

² U.S. Department of Energy. 2013. E-Gallon methodology using Massachusetts specific information for electricity rates (2013, <http://www.eia.gov/electricity/data.cfm#sales>) and fuel costs (12/30/13, http://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_sma_w.htm); <http://energy.gov/sites/prod/files/2013/06/f1/eGallon-methodology-final.pdf>; energy.gov.

³ U.S. Department of Energy, June 10, 2013. The eGallon: How Much Cheaper Is It to Drive on Electricity? <http://energy.gov/articles/egallon-how-much-cheaper-it-drive-electricity>



What other resources are out there for entities to learn more about EVs?

The Massachusetts Department of Energy Resources (DOER) Clean Cities Coalition and Alternative Transportation Program is part of a nationwide program sponsored by the U.S. Department of Energy (DOE) -

<http://www1.eere.energy.gov/cleancities/> that focuses on promoting the adoption of alternative fuel vehicles, as **well** as supporting the development of infrastructure necessary to make alternatively fueled vehicles (AFVs) a viable transportation option: <http://www.mass.gov/eea/energy-utilities-clean-tech/alternative-transportation/clean-cities-coalition.html>

The Transportation and Climate Initiative's Northeast Electric Vehicle Network has developed a number of useful electric vehicle guidance documents for communities in the Northeast and Mid-Atlantic states. The documents were developed to help public and private stakeholders, government planners, and businesses become "EV-ready." The link to the documents page (<http://www.transportationandclimate.org/northeast-electric-vehicle-network-documents>) contains a number of individual documents of interest for planning, guidance, and analysis:

- 1.) NYSERDA and Transportation and Climate Initiative (November, 2012). Siting and Design Guidelines for Electric Vehicle Supply Equipment.
<http://www.transportationandclimate.org/siting-and-design-guidelines-electric-vehicle-supply-equipment>
- 2.) NYSERDA and Transportation and Climate Initiative (November, 2012). Assessment of Current EVSE and EV Deployment.
<http://www.transportationandclimate.org/assessment-current-evse-and-ev-deployment>
- 3.) Transportation and Climate Initiative (May, 2013). Lessons from Early Deployments of Electric Vehicle Charging Stations.
<http://www.transportationandclimate.org/lessons-early-deployments-electric-vehicle-charging-stations>
- 4.) Transportation and Climate Initiative (March, 2013). Menu of Plug-In Electric Vehicle Incentives.
<http://www.transportationandclimate.org/menu-plug-electric-vehicle-incentives>
- 5.) NYSERDA and Transportation and Climate Initiative (December, 2012). Electric Vehicle Supply Equipment Cluster Analysis.
<http://www.transportationandclimate.org/electric-vehicle-supply-equipment-cluster-analysis>
- 6.) NYSERDA and Transportation and Climate Initiative (November, 2012). EV Ready Codes for the Built Environment.
<http://www.transportationandclimate.org/ev-ready-codes-built-environment>
- 7.) NYSERDA and Transportation and Climate Initiative (November, 2012). Creating EV-Ready Towns and Cities: A Guide to Planning and Policy Tools.
<http://www.transportationandclimate.org/creating-ev-ready-towns-and-cities-guide-planning-and-policy-tools>
- 8.) NYSERDA and Transportation and Climate Initiative (September, 2012). Plug-In Electric Vehicle Deployment in the Northeast.
<http://www.transportationandclimate.org/tci-releases-report-status-electric-vehicles-northeast-0>



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The U.S. Department of Energy's Clean Cities program helps vehicle fleets and consumers reduce their petroleum use. Clean Cities builds partnerships with local and statewide organizations in the public and private sectors to adopt alternative and renewable fuels, idle reduction measures, fuel economy improvements, and new transportation technologies, as they emerge: <http://www1.eere.energy.gov/cleancities/>

And to compare fuel savings between a conventional vehicle and an EV, go to: <http://www.fueleconomy.gov/>

